UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,576	02/19/2004	Yuh-Cherng Wu	13906-090001/2003P00410US	4747

32864 7590 04/13/2006		EXAMINER

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EXAMINER
FERNANDEZ RIVAS, OMAR F

ART UNIT	PAPER NUMBER
2129	

DATE MAILED: 04/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/782,576	WU ET AL.
	Examiner	Art Unit	
	Omar F. Fernández Rivas	2129	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>19 February 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-15</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-15</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>19 February 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>A1, A2, A3, A4</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-15 are pending on this application.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 15 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claim is directed to a computer program (software "per se") and is not embodied on a computer readable medium. A claim that recites a piece of software alone without any link to a hardware component (computer readable medium) is directed to non-statutory subject matter.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kakefuda in view of Goyal et al (US Patent #5,386,498, referred to as **Kakefuda**; US Patent Application #10/323,570, referred to as **Goyal**).

Claims 1 and 15

Kakefuda teaches a method for generating a new knowledge base
(**Kakefuda**: abstract, L1-13; C1, L58-31), the method comprising: receiving a
signal that defines content to be included in the new knowledge base (**Kakefuda**:
abstract, L6-13; C1, L9-15; C1, L62-68, C2, L1-15; C2, L35-42; Figs. 1 and 6A;
Examiner's Note (EN): during the inference process, a signal is produced. The
content is defined by the data extracted from the knowledge bases and external
data input); searching for tables within an existing database and identifying at
least one candidate table that is associated with data that may be relevant to the
defined content to be included in the new knowledge base (**Kakefuda**: C3, L34-
44; C3, L61-65; C5, L25-36; C6, L45-51; Fig. 2; EN: searching the program
modules to extract the necessary knowledge base modules is the same as
searching for tables. Tables can be considered as dividing the Knowledge base
into modules).

Kakefuda does not teach determining at least one candidate application
programming interface (API) for each candidate table; assessing combinations of
the identified at least one candidate table and the determined at least one
candidate API and selecting therefrom a master table and a master API for the
new knowledge base; and generating the new knowledge base that is accessible
by more than one application program within an integrated system.

Goyal teaches determining at least one candidate application
programming interface (API) for each candidate table (**Goyal**: abstract, L1-9;

page 1, par 13, L1-7; page 2, par 26, L1-11; Figs. 2 and 3; EN: the policy manager determines the policies (API) to communicate with the database (see paragraph 3 of the present application); assessing combinations of the identified at least one candidate table and the determined at least one candidate API and selecting therefrom a master table and a master API for the new knowledge base (**Goyal**: abstract, L1-9; page 1, par 13, L5-7; page 2, par 28; page 3 par 40; pages 3-4 paragraphs 41-42; EN: determining the tablespace based on the policy rules is determining a master table and a master API); and generating the new knowledge base that is accessible by more than one application program within an integrated system (**Goyal**: page 1, par 13, L1-5; page 2, par 16, L1-5; EN: workload measures how many processes (programs) are accessing the knowledge base).

It would have been obvious to one of ordinary skill in the arts at the time of the applicant's invention to modify the teachings of Kakefuda by determining at least one candidate application programming interface (API) for each candidate table; assessing combinations of the identified at least one candidate table and the determined at least one candidate API and selecting therefrom a master table and a master API for the new knowledge base; and generating the new knowledge base that is accessible by more than one application program within an integrated system as taught by Goyal for the purpose of identifying which portion of the Knowledge base contains the data necessary to store in the new Knowledge base and the protocols needed by the application programs to access that data in the new database.

Claim 2

Kakefuda teaches the received signal is generated by an application

program within the integrated system (**Kakefuda**: C3, L45-57; Fig. 2; EN: in a

computer system all operations (signals) are generated by programs).

Claim 3

Kakefuda teaches the new knowledge base is generated in response to

the received signal (**Kakefuda**: abstract, L1-13; C1 L58-61; C3, L45-57; Fig. 2;

EN: synthesizing the knowledge base modules into one knowledge base is

creating a new knowledge base).

Claim 4

Kakefuda teaches applying one or more heuristic rules to determine a

score for each table and selecting candidate tables from among tables that score

above a threshold score (**Kakefuda**: abstract, L13-21; C3 L34-44; C3, L61-68,

C4, L1-31; C4, L68, C5, L1-6; Figs. 1, 4 and 5; EN: extracting the facts and

production rules (heuristic rules) and determining a certainty factor (score)).

Claim 5

Kakefuda teaches adapting the heuristic rules based on experience to

optimize performance of subsequently generated new knowledge bases

(**Kakefuda**: C5, L10-54; Figs. 3-5; EN: tuning the certainty factors is adapting the

rules).

Claim 6

Kakefuda does not teach assessing APIs and applying one or more heuristic rules to determine a score for each API and selecting candidate APIs from among APIs that score above a threshold score.

Goyal teaches assessing APIs and applying one or more heuristic rules to determine a score for each API and selecting candidate APIs from among APIs that score above a threshold score (**Goyal**: page 3, par 40; page 4, par 42; Fig. 2-5; EN: applying the rules to determine restrictions (see example on priorities).

It would have been obvious to one of ordinary skill in the arts at the time of the applicant's invention to modify the teachings of Kakefuda by assessing APIs and applying one or more heuristic rules to determine a score for each API and selecting candidate APIs from among APIs that score above a threshold score as taught by Goyal for the purpose of selecting the API that best fits the data contents so that the data can be accessed.

Claim 7

Kakefuda teaches adapting the heuristic rules based on experience to optimize performance of subsequently generated new knowledge bases (**Kakefuda**: C5, L10-54; Figs. 3-5; EN: tuning the certainty factors is adapting the rules).

Claim 8

Kakefuda does not teach selecting at least one existing API to be one of the candidate APIs.

Goyal teaches selecting at least one existing API to be one of the candidate APIs (**Goyal**: page 1, par 13, L1-7; page 2, par 26, L1-11; EN: determining the policies is selecting an existing policy (API) as a candidate API).

It would have been obvious to one of ordinary skill in the arts at the time of the applicant's invention to modify the teachings of Kakefuda by incorporating selecting at least one existing API to be one of the candidate APIs as taught by Goyal for the purpose of having a protocol that is known to function with the data in the knowledge base.

Claim 9

Kakefuda does not teach generating code to create one of the candidate APIs.

Goyal teaches generating code to create one of the candidate APIs (**Goyal**: page 2, par 25, L1-6; page 3, par 40; page 4, claim 1, L4-5).

It would have been obvious to one of ordinary skill in the arts at the time of the applicant's invention to modify the teachings of Kakefuda by incorporating generating code to create one of the candidate APIs as taught by Goyal for the purpose of obtaining code tailored to work on the data stored in the database so that programs can access the data.

Claim 10

Kakefuda teaches testing the new knowledge base to verify that the new knowledge base is accessible by more than one application program within the integrated system (**Kakefuda**: C1, L58-61; C5, L25-54; EN: verifying the knowledge base and tuning the certainty factors).

Claim 11

Kakefuda does not teach the method runs as a background process relative to the application program.

Goyal teaches the method runs as a background process relative to the application program (**Goyal**: page 1, par 13, L12-15; EN: performing the process while the program (transaction) is still pending is running as a background process).

It would have been obvious to one of ordinary skill in the arts at the time of the applicant's invention to modify the teachings of Kakefuda by incorporating running the method as a background process relative to the application program as taught by Goyal for the purpose of being able to create the knowledge base without interrupting the running application.

Claim 12

Kakefuda teaches generating the new knowledge base with a single click

from within the application program (**Kakefuda**: C3, L45-57; FIG. 2; EN: a user

must use some sort of input device to input data to the system and start the

process).

Claim 13

Kakefuda teaches selecting an icon on a display to trigger the received

signal (**Kakefuda**: C3, L45-57; Fig. 2; EN: the user interfaces with the system via

a CRT device)

Claim 14

Kakefuda teaches the integrated system comprises an enterprise system

(**Kakefuda**: abstract, L1-6; C2, L35-40; EN: a system that attains different

objects is an enterprise system).

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Wilbanks et al US Patent Application#10/154,407

Kawai US Patent #5,819,254

Andersen et al US Patent #6,640,231

6.   Claims 1-15 are rejected.

Correspondence Information

7.   Any inquires concerning this communication or earlier communications

from the examiner should be directed to Omar F. Fernández Rivas, who may be

reached Monday through Friday, between 8:00 a.m. and 5:00 p.m. EST. or via

telephone at (571) 272-2589 or email omar.fernandezrivas@uspto.gov.

If you need to send an Official facsimile transmission, please send it to (571)
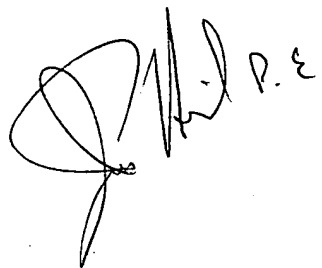
273-8300.

If attempts to reach the examiner are unsuccessful the Examiner's

Supervisor, David Vincent, may be reached at (571) 272-3080.

Hand-delivered responses should be delivered to the Receptionist @

(Customer Service Window Randolph Building 401 Dulany Street Alexandria, VA

22313), located on the first floor of the south side of the Randolph Building.

Omar F. Fernández Rivas
Patent Examiner
Artificial Intelligence Art Unit 2129
United States Department of Commerce
Patent & Trademark Office

Tuesday, April 11, 2006

OFR